	Application No.	Applicant(s)
Notice of Allowability	10/066,660	SEKIGUCHI ET AL.
	Examiner	Art Unit	
	Neveen Abel-Jalil	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *March 30, 2006*.

2. ☒ The allowed claim(s) is/are *1-18*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

Remarks

1.   The Amendment filed on 30-March-2006 has been received and entered. Claims 1-18 are

pending.

. 2.   Applicant's Amendment has overcome previous claim objections and rejections under 35

USC 112, second paragraph.

EXAMINER'S AMENDMENT

3.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Mr. Carl I. Brundidge (Attorney of Record) on April 14, 2006.

Amendments to the Claims:

4.   The claims has been amended as follows:

Replace claim 2 with the following:

Claim 2 (Currently Amended): A The storage resource operation managing method as claimed in

claim 1, wherein as said storage resource selecting condition, at least one storage resource is

selected which is located within said requirement range of at least one of said logical distance

and said geographical distance.

Replace claim 3 with the following:

Claim 3 (Currently Amended): A The storage resource operation managing method as claimed in

claim 2, wherein within at least one storage resource located in said requirement range, at least

such one storage resource is selected whose at least one of said logical distance and said

geographical distance is closer than those of other storage resources.

Replace claim 4 with the following:

Claim 4 (Currently Amended): A The storage resource operation managing method as claimed in

claim 2, wherein within at least one storage resource located in said requirement range, at least

such one storage resource is selected, the geographic distance of which is far from the

geographical distance of another storage resource.

Replace claim 7 with the following:

Claim 7 (Currently Amended): A The storage resource operation managing method as claimed in

claim 1, wherein with respect to at least a first storage resource contained in said storage group,

    a requirement range with respect to a geographical distance from said first storage

resource is acquired;

    a second storage resource is selected from said storage group located within the

requirement range with respect to said geographical distance from said first storage resource, or a

second storage within the requirement range with respect to said geographical distance from said

first storage resource;

copied data as to at least a data portion of such data stored in said first storage resource is

stored into said second storage resource; and

in the case that an occurrence of a trouble of said first storage resource is detected, the

access request issued from said node, which is transmitted to said first storage resource, is

executed with respect to said copied data of the data stored in said second storage resource.

Replace claim 8 with the following:

Claim 8 (Currently Amended): A The storage resource operation managing method as claimed

in claim 1, further comprising the steps of:

in such a case that a geographical location of said node is changed from a first setting

position to a second setting position judging whether or not a logical distance defined from said

node set at the second setting position up to such a storage resource which executes an access

request transmitted by said node is located within said requirement range; and

moving data in said storage resource into another storage resource, when the logical

distance from said second setting position is located is beyond said requirement range.

Replace claim 11 with the following:

Claim 11 (Currently Amended): A The storage resource managing method according to claim

10, wherein the step of allocating comprises the step of:

if the storage resource located within said requirement range is not present, allocating at

least one storage resource that does not satisfy said requirement range based on the acquired

storage resource information.

Replace claim 12 with the following:

Claim 12 (Currently Amended): A The storage resource managing method according to claim

11, wherein the allocated at least one storage resource that does not satisfy said requirement

range is a storage resource wherein a difference between information regarding a storage device

forming the allocated at least one storage resource and said requirement range is smaller than a

difference between information regarding devices forming other storage resources that do not

satisfy said requirement range.

Replace claim 13 with the following:

Claim 13 (Currently Amended): A The storage resource managing method according to claim

11, wherein at least one of said logical distance and said geographical distance of the allocated at

least one storage resource is closer than those of the other storage devise -resource that does not

satisfy said requirement range.

Replace claim 14 with the following:

Claim 14 (Currently Amended): A The storage resource managing method according to claim

11, wherein at least one of said logical distance and said geographical distance of the allocated at

least one storage resource is farther than those of the other storage devise -resource that do not

satisfy said requirement range.

Replace claim 15 with the following:

Claim 15 (Currently Amended): A The storage resource managing method according to claim

11, wherein the step of allocating comprises the step of:

        if the storage resource located within said requirement range is not present, adding at

least one of new storage resources that satisfy said requirement range and allocating at least one

of said new storage resources.

Replace claim 16 with the following:

Claim 16 (Currently Amended): A The storage resource managing method according to claim

10, further comprising the steps of:

        if a geographical location of said computer is changed from a first location to a second

location, judging whether or not a logical distance between said computer in said second location

and said allocated storage resource is within said requirement range;

        if said logical distance between said computer is said second location

and said allocated storage resource is beyond said requirement range, adding

a storage resource that satisfies said requirement range; and

        moving data to the added storage resource.

Replace claim 17 with the following:

Claim 17 (Currently Amended): A The storage resource operation managing method according

to claim 1, wherein said installation information includes an operation ratio, a storage capacity, a

rotation per minute of disk, an access time in disk, a packet response time, and a hop number.

Replace claim 18 with the following:

Claim 18 (Currently Amended): A The storage resource operation managing method according

to claim 1, wherein said information of said geographical distance is based on a latitude and a

longitude of each of said node and storage resources.

Allowance

5.   Claims 1-18 are allowed over the prior art made of record.

6.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for
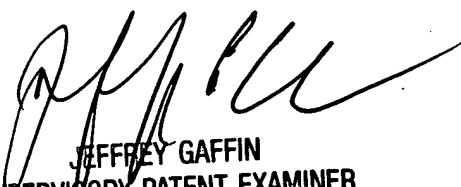
Allowance."

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074.

The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be

obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil
April 14, 2006

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100